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Et al.

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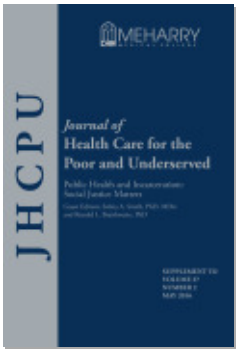

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A Call to Action: A Blueprint for Academic Health Sciences in the Era of Mass Incarceration

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Abstract: Over 100 million Americans have criminal records, and the U.S. incarcerates seven times more citizens than most developed countries. The burden of incarceration disproportionately affects people of color and ethnic minorities, and those living in poverty. While 95% of incarcerated people return to society, recidivism rates are high with nearly 75% arrested again within five years of release. Criminal records impede access to employment and other social services such as shelter and health care. Justice-involved people have higher rates of substance, mental health, and some chronic medical disorders than the general population; furthermore, the incarcerated population is rapidly aging. Only a minority of academic health science centers are engaged in health services research, workforce training, or correctional health care. This commentary provides rationale and a blueprint for engagement of academic health science institutions to harness their capabilities to tackle one of the country's most vexing public health crises.

Key words: Criminal justice, vulnerable populations, public health, health services research, academic training.

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Over the last 40 years, the number of individuals incarcerated in the U.S. has risen by 700% and the incarceration rate is seven-fold higher than in most developed Western European countries.[1] Approximately 100 million Americans have criminal records.[2] The burden of incarceration disproportionately affects people of color and ethnic minorities.[3] Seventy percent of African American men who do not graduate from high school have been incarcerated by age 40.[4] For men born between 1965 and 1969 and surviving to 1999, the lifetime risk of incarceration for White men was 3.2% (1:31) but for Black men was 22% or 1:4.5.[3] Of the 11 million people cycling through jails annually and over 700,000 releases from prison, 95% of incarcerated people will return to communities. In the absence of evidence-based intervention, five-year recidivism rates hover at 75%,[5] perpetuating an unbridled cycle of incarceration. Estimates further indicate that 80% of all arrests are linked directly or indirectly to drug and alcohol use[6] with over 15% of incarcerated people having co-morbid serious mental illness.[7] Medical and psychiatric co-morbidity in prisons is increasingly common, especially as the population ages. Consequently, 30–40% of detainees have a chronic medical condition including blood-borne infections associated with drug injection.[8] The scope of the problem and the downstream effects on the lives of individuals, families, and society contribute to compelling arguments for viewing criminal justice involvement as one of the most important root causes of poor health in the U.S.[9–12] This is particularly true for racial/ethnic minorities where disproportionate incarceration rates and the impact of "collateral consequences" lead to a lifetime of poverty and second-class citizenship.[13] In turn, the negative impact on social determinants of health suggests that criminal justice involvement is a key contributor to health disparities. Over the last 15 years, there has been a slow but growing interest in the impact of criminal justice involvement on health.

In 2004, a call for collaboration between the criminal justice system and academic disciplines was published followed by planning for a national academic conference; the inaugural Academic and Health Policy Conference on Correctional Health was held in 2007 with selected proceedings laying out a blueprint for academic engagement in correctional primary care, infectious diseases, and mental health.[14–17] Leaders of key stakeholders organized and the Academic Consortium on Criminal Justice Health was formed with a mission to advance the science and practice of health care for individuals and populations within the criminal justice system.

Given the how widespread justice involvement is in the U.S. and the evidence for its impact on public health, we now call on academic health science institutions, including universities, affiliated institutions providing health care, and grant-making institutions to harness their capabilities to tackle one of the country's most vexing crises. This commentary will put forth a blueprint for engagement including research, training, clinical care and collaboration with the academic criminal justice establishment.

Research and Recommendations for Future Research

Criminal justice involvement extends beyond the 20% of Americans with criminal convictions. Annually, over 14 million adults are arrested in addition to the nearly seven million adults who are already under some type of correctional control.[18] Involvement

with the justice system is no longer unusual or limited to a small percentage of Americans. Currently, about one-third of the adult working age population has a criminal record.[19] People of color, especially those living in impoverished, urban communities are disproportionately entangled in the criminal justice system; 40 years of racial disparities in incarceration has been empirically tied to systemic structural disadvantage and health inequalities among historically oppressed minorities.[20,21]

Surprisingly most epidemiological surveys do not capture information about criminal justice involvement, including past or current involvement. The National Survey on Drug Use and Health (NSDUH) is a rare exception.[22] However, the justice involvement inquiry is confined to questions about probation or parole within the past 12 months. The NSDUH does not include past arrest or incarceration history or any indication of prior involvement with the justice system.

Despite its limitations, the NSDUH has compared disease prevalence in the justice population to that in the general population. Probationers and parolees have substance use disorders at four times the rate of the general population, and mental health disorders occur at twice the rate of the general population.[23] The Bureau of Justice Statistics (BJS) recently used NSDUH data to compare the prevalence of chronic or infectious diseases of the general population with inmates in federal and state prisons and local jails and found that incarcerated jail and prison populations had higher rates of both infectious and chronic diseases.[24] Except for the NSDUH, most of our knowledge about the health needs of justice-involved individuals is from studies that are limited in size, to populations specific to the study aims, and inconsistent measurements used in the different studies.

The meager funding of criminal justice health research coupled with the huge societal costs of the justice apparatus suggests that there is an enormous gap in our understanding of how justice involvement affects health status and health conditions, and how health conditions are addressed when individuals are in different justice settings (i.e., jail, prison, probation, parole, pretrial). As noted recently, only 0.1% of National Institutes of Health (NIH)-funded grants focused on elements of criminal justice health from 2007–2012.[25] Given the paucity of research and understanding of the health services utilization by justice involved individuals, the following outlines an extensive agenda to expand our knowledge. The overall recommendation is that there is a need in every way possible to measure criminal justice status of the individual (e.g., pretrial defendant, pretrial detainee in jail, sentenced to jail, sentence to prison, probationer, parolee, drug court participant, diversion), criminal justice setting, and criminal justice risk level. Criminal justice risk indicates the likelihood that an individual will have further involvement in the justice system.[26] These should be core measures incorporated into any study to capture key information about how justice involvement affects an individual's behavioral health and chronic health conditions. The following are the recommendations:

1. **Prevalence studies**. All major epidemiology surveys should harmonize their measures and include measures of the type of justice involvement and the status of the individual. This should be a responsibility for all publicly-funded population surveys across the spectrum of agencies including the Census Bureau, Department

of Health and Human Services, Bureau of Justice Statistics, and Departments of Education and Labor. This ensures that it is possible establish national prevalence rates that allow for surveillance of key indicators by health agencies.

2. **Intervention studies**. Given the specific comorbid condition of many justice-involved individuals (either a combination of behavioral health conditions, complex medical needs, or behavioral health and chronic diseases), many evidence-based interventions that are effective in the community such as integrated primary care and behavioral health, care coordination during transitions, and care management[27,28] must be assessed in justice-involved populations. Studies have found, however, that interventions are not always transportable without adaptation for the justice population or for delivery in justice settings.[29] More site-specific (e.g., jail, prison, probation, parole) and culturally-adapted intervention studies are needed to understand how to engage clients in care, how to address various types of comorbid conditions with integrated care models, and the effects of certain intervention on both health and justice outcomes.
3. **Implementation science**. The justice system is designed to promote public safety, as well as to punish individuals. Implementing programming, health care, and service delivery meets with unique challenges given the punitive culture, the security needs that occur in incarceration settings, and the balancing act between addressing programming needs and managing the offender population. Implementation science is needed to understand how to deliver evidence based practices and treatments in justice settings.
4. **Development or adaptation of evidence-based practices and treatments for justice clients**. There is a presumption that the clinical practices, studies of evidence-based practices and treatments on the general population, and efficacy trials will generate evidence based practices and treatments that are relevant for justice populations. More efficacy and effectiveness trials are needed to generate outcome studies that can address the myriad of health and behavioral health conditions.
5. **Participatory research**. The justice system is one area where stakeholders are infrequently involved in the design, execution, and interpretation of studies. To extend the significance and relevance of the research, justice actors, treatment providers, justice involved individuals, and individuals in recovery or formerly involved in the justice system, among others, must also become involved. Community-based participatory research (CBPR) is an applied approach that has been widely used in public health research to gain a deeper understanding of societal problems and develop applied solutions by identifying and engaging a diverse set of community stakeholders who collaborate with researchers in all aspects of a research project, including study design, data collection, data analysis and dissemination.[30–32] Its underlying principles are relevant here.
6. **The Patient Protection and Affordable Care Act (ACA)**. The ACA's expansion of Medicaid eligibility to young adults without dependent children will result in coverage for individuals with justice involvement. A growing body of scholarship is exploring the role of the ACA in bridging silos between community and correctional health agencies. For instance, a recent study identified 64 programs in

jails, prisons, and probation and parole offices across the U.S. devoted to enrolling people into Medicaid. Yet, unanswered questions exist on the potential of the ACA to address health disparities by transforming justice settings into places for facilitating Medicaid enrollment, health outreach, and delivering integrated services. Research is needed to explore these issues in different jurisdictions due to state-level variations in embracing and implementing the ACA.[33,34]

Education and Training

With nearly 12 million individuals released from jails and prisons annually and the additional 2.2 million incarcerated inmates on any given day,[5] it is likely that nearly every health care clinician provides care for justice-involved people or their family members affected by incarceration. Care delivery in such settings also requires a unique set of competencies seldom taught in traditional training.[35] This population differs from other vulnerable groups because of their incarceration experience affecting behavioral challenges through learned dependency behaviors, maladaptive survival skills and lost normative behaviors[36–39] that interfere with their ability to engage in expected patient-provider behaviors. Inadequate preparation of clinicians increases burnout, turnover, poor outcomes, and higher costs in an already fractured clinical care system. With the exception of supervised rotations and internships that are routine in psychiatry and nursing, health profession schools have been slow in developing curricula and training opportunities. For example, while curricula on such topics as health disparities, social determinants of health, and cultural competence are common, only 22 primary care training programs include correctional health care.[40] Training students in correctional settings demonstrates the impact of social determinants on health outcomes directly.

In 2012, the American Osteopathic Association (AOA) in collaboration with three colleges of osteopathic medicine, adopted standards for accreditation for a fellowship in correctional medicine and a Certificate of Added Qualification (CAQ).[41] With the planned joining of the AOA with American Council for Graduate Medical Education into a single system, this CAQ will likely be expanded. Models for such fellowships were first pilot tested in Florida and Massachusetts.[42] A two-year accredited fellowship in correctional medicine, with an integrated requirement for a Master's of Public Health (MPH) degree, now exists in Connecticut, where the University of Connecticut is contracted to provide care in prisons and jails.[43]

Beyond medicine, clinicians in other disciplines such as nursing are responsible for a majority of the care delivered and receive neither adequate clinical preparation nor adequate continuing educational support. Nurses are among the largest group of health care providers in criminal justice systems. Standards of clinical correctional nursing care[44] exist but few aspects of correctional nursing have been empirically tested and translated into practical and applied competencies.[35,36] As a result, the quality of nursing care is irregular and correctional systems of care remain fragmented. Nurse preparation, job satisfaction, and retention are poor; clinical evidence and best practices are not entering these systems.

Academic preparation of nursing students through clinical orientations, use of simulation, and clinical rotations/placements can positively affect recruitment. One academic

program[45,46] has developed a structured orientation introducing nursing students to the criminal justice environment. This program has resulted in 25% of students subsequently working in correctional settings. Programming includes both service learning opportunities and clinical research projects through a public-academic partnership.

While recommendations for interprofessional education to train health professions students for the 21st century have received wide attention, care systems in prisons and jails, particularly models of integrated medical and behavioral health care, are lacking. Fostering curricula designed to be interprofessional with a focus on justice-involved populations would help to accelerate integrated correctional care and spread existing systems for efficient and effective care transitions to the community upon release. The development of patient-centered medical homes in correctional settings and tailoring community-based medical homes to the needs of released detainees offer the real potential for enhanced workforce satisfaction, quality improvement, and cost effectiveness.

Recommendations to academic health science institutions:

1. Undergraduate, predoctoral and postdoctoral degree and training programs should address the need to prepare its learners to care for justice-involved populations in every health care discipline.
2. Accreditation organizations should require a core curriculum on criminal justice health.
3. Congress and the Executive branch should support federal agencies to fund innovative models for training. For example, Title VII and VIII funding for medicine and nursing could offer grants to support innovative training programs for undergraduate, predoctoral and postdoctoral training. Additionally, Foundations that support innovations in health professions' training should prioritize training to prepare individuals to provide care for this at-risk population.

Clinical Care

Access to and quality of health care across the nation's jails, prisons, and community-based systems is inconsistent. While there are some model programs that meet or exceed community standards, many fall short of even the limited health care delivery available in community settings. Some facilities or systems do not require board eligibility or certification of physicians; some may have restricted licenses that preclude practice in the community. Substantial improvements in correctional health care followed the U.S. Supreme Court decision in Estelle v. Gamble[47] that held that deliberate indifference to serious medical needs of convicted inmates violates the Eighth Amendment of the Constitution on the grounds that it is cruel and unusual punishment. These findings were soon after extended to mental health.[48] Pretrial detainees were found to have a similar standing[49] on the basis of the due process clause of the 5th and 14th Amendments to the U.S. Constitution. Much successful class action litigation followed that led to substantial improvements in correctional health care; this avenue was limited by the subsequent 1996 Prison Litigation Reform Act.[50] The Civil Rights Division of the Department of Justice (DOJ), however, still actively pursues these concerns.[51]

The work of the National Commission on Correctional Health Care (NCCHC) and the American Correctional Association (ACA), and in rare cases the Joint Commission, led to development of standards and some systems voluntarily agree to be held to those standards. However, most systems are marginally funded and most do not participate in accreditation with only 17% participating in NCCHC review.[52] In turn, many systems have been required to improve by court mandate. Clinician staffing inadequacies are routine in many correctional facilities, as are compromised conditions of confinement. Health consequences due to such issues were evident in the Supreme Court case Brown v. Plata,[53] which noted that conditions in California prisons compromised health care delivery and resulted in a culture of "cynicism and fear." Many correctional clinicians may themselves feel marginalized or isolated from community colleagues. The stress of balancing safety and security demands while working to build therapeutic relationships can be significant.[54]

During court-mandated oversight, improvements are made; often, subsequent to formal oversight, the system regresses due to the inevitable pressures of budget reductions and changes in administration. Furthermore, federal funding is precluded to states and counties in cases where inmates are excluded from Medicaid and Medicare.[55,56] Prior to incarceration, justice-involved populations generally have low utilization rates of community-based care.[57] Correctional systems however have the potential to become integrated into medical home models and to build upon continuity-of-care systems.[58]

At this time, very limited information is available regarding treatment quality and access. Some evidence of very positive health outcomes exists for selected facilities and systems in metabolic and infectious disease treatment.[59,60] Indeed, 40% of people are first diagnosed with a chronic disease during incarceration in a prison.[43] With respect to the interventions to improve care during the transition to community following release, the Transitions Clinic Network (a national network of medical homes for individuals with chronic diseases recently released from prison) is proving to be a very positive intervention to continue health care.[58] In contrast, while over 70% of people in state prisons need treatment for substance use disorders, only 13% receive such care.[61]

Recommendations for Academic Health Centers

Academic health centers (AHCs) have much to offer correctional partners: expertise in evaluation, quality improvement, evidence-based practice, and implementation science.[56,58,59] Correctional care allows academic physicians, nurses, pharmacists, and other health professionals to develop population health skills and may stimulate new approaches to community-based population health initiatives. While relatively few AHCs are currently working in this arena, the convergence of need, opportunity, and mission argue forcefully for more extensive commitments. Correctional health care provides opportunities to address health inequities. Such settings are excellent environments for AHCs to develop and hone the skills needed to improve the experience of care for individuals, improve the health of populations, and lower per capita costs.[43,62] Further, correctional care delivery provides settings for refining Accountable Care Organization (ACO) capacity. Given the opportunities noted here, we strongly believe that AHCs should engage in planning efforts to:

1. Seek contracts to assume primary care for individuals incarcerated in their local jails and regional prisons, as well as community-based service settings such as primary clinics and skilled nursing facilities;
2. Adapt and refine best community practices for chronic disease prevention and management, gender-specific care, and care for aging populations in correctional settings;
3. Develop secure, model outpatient referral centers for subspecialty consultation and care;
4. Develop agreements to serve as post-release referral hospitals and medical homes with coordinated care transition; and
5. Further develop telemedicine skills for correctional use.

Collaboration across the academic disciplines of Health Sciences and Criminal Justice. Recent strategies to reduce mass incarceration focus on the "front end" through alternatives to sentences, changes in mandatory minimum sentencing and on the "back end," collateral consequences are being proposed. With respect to community reentry interventions, most are focused on reducing barriers to employment, housing, food security and vocational services for successful reintegration of released inmates into communities.[63] Few efforts focus on expanding health care services including preventive services and self-management, accessing behavioral health treatment and transitional services, or addressing the myriad of behavioral health and comorbid chronic diseases. This division between justice reforms and integrated health care follows from reforms proffered by different disciplines with different agendas. The justice based sentencing reforms are appropriately borne out of the justice system and justice actors that tend to develop through the lens of criminal justice reforms absent input from the health care system or interdisciplinary teams. This reinforces the disinterest of health care leaders and health policy experts. This means that behavioral health services—mental health and substance abuse—which affect criminal behavior (including violent crime) are neglected in the cadre of reforms.

Recommendations for Future Research and Advocacy

1. It is critical that scholars in the fields of criminal justice and health care begin to collaborate.
2. Grant-making organizations should encourage and foster these collaborations.
3. Interdisciplinary health professional associations would take leadership to promote attention to policy reform through collaborative or coordinated efforts, develop a clearinghouse for partnerships to address cross-cutting issues affecting these populations.

Conclusions

The massive growth of incarceration in the United States and the downstream impact on the quality of life and health of affected individuals and families is staggering. It is appropriate that scholars and policymakers in the field of criminal justice tackle this

problem. However, the downstream impact on social determinants of health as a result of incarceration, the racial, ethnic and socioeconomic disparities of justice involvement, and the influence of behavioral conditions on criminal behavior are equally compelling. The authors believe that academic health science centers and governmental organizations concerned with health care, health training, and health services research have equal responsibilities to address the American mass incarceration phenomenon. Unless more multidimensional justice and health care reforms are offered, the efforts to prevent recidivism, to reduce health disparities, and to mitigate the economic and societal consequences of incarceration will be lost.

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